

Figures 4A-4C illustrate various example data organizations suitable for use to store various visualization configuration related information for practicing the present invention, in accordance with one embodiment. More specifically, **Figures 4A-4C** represent data that may be provided to a communication server by a wireless mobile client during a registration process, as well as data representations of one or more luminescent patterns pre-defined within communication server **300**.

Figure 4A illustrates a data organization containing event code field **402**, locator reference field **404**, client identifier field **406** and display pattern field **408**. As described above, event code field **402** identifies a particular event and/or venue to a communication server, whereas client identifier field **406** identifies a particular client to the communication server. In accordance with one embodiment of the invention, the data appearing in the table of **Figure 4A** (with the exception of client identifier **406**) is pre-stored for use in association with an interactive voice response service of the communication server accessible to one or more wireless mobile clients via a generic dial number. In alternate embodiments, the data appearing in the table of **Figure 4A** is accessible to one or more wireless mobile clients via a web interface and e.g. a specified URL, as well as other non-voice related means. By calling the generic number for example, wireless mobile clients are prompted to identify an event code, and optionally a locator reference to the system.

Either one or both of the event and locator reference codes may be provided to users through e.g. an event publication such as a brochure or ticket stub, or through a preprogrammed storage medium integrated with an interchangeable covering of e.g. a wireless mobile phone (also referred as "active" skin for certain embodiments as

described e.g. in U.S. provisional patent application no. 60/306,326), which when used in combination with a given one of wireless mobile clients **108**, facilitates automatic registration. In one embodiment, a user is granted the right to download/access data associated with the display of one or more luminescent patterns by virtue of their paying the admission price to an associated event and/or by purchasing an identified "active" skin.

Upon providing such event and locator data to the communication server for example, the user may be requested for a client identifier, or the identifier may be obtained automatically through e.g. DNIS or via embedded codes within an "active" skin. Once obtained, the client identifier is stored in association with the locator reference code for subsequent transmission of one or more luminescent patterns (i.e. as indicated by display pattern field **408**) to the wireless mobile client. If an event-specific dial number is used to access the voice response system rather than a generic dial number being used, event code field **402** may be omitted. Likewise, if an event-specific web interface is utilized, event code field **402** may similarly be omitted.

Figure 4B illustrates a data organization further containing control vector field **410**. In accordance with one embodiment, data within control vector field **410** is pre-stored as representations of luminescent patterns to be displayed, either independently or in sequence as an animation. For example, if a predefined luminescent pattern identified by the numeral "1" is to be displayed (e.g. as indicated by pattern display field **408**), communication server **300** performs a lookup to determine control codes needed to effectuate the desired luminescent patterns. In **Figure 4B**, the control codes are illustrated as a group of binary "1"s and "0"s with "0" denoting an "off" state and "1"

denoting an “on” state for the light emitting devices (e.g. LEDs) of a wireless mobile client. Depending upon implementation, the control vector may indicate operating states and intensities for single color or multicolor LEDs.

Lastly, **Figure 4C** illustrates another data organization showing that not only may the luminescent patterns to be displayed vary by event (as shown in **Figure 4B**), but the luminescent patterns to be displayed may also vary by location of the wireless mobile device. The luminescent patterns may also vary according to other criteria, such as the capabilities of the device (e.g. as discovered during a previous negotiation period with a server or in real-time by transmitting several instruction sets and having the device choose the correct one) or what services/features the owner of the device has purchased, asked for, enabled, or otherwise passively or actively selected.

Figure 5 illustrates an exemplary operational flow of one embodiment of the present invention. As illustrated in **Figure 5**, a wireless mobile client device establishes a communication session with a communication server, **block 502**. Once the wireless mobile client is in communication with the communication server, the wireless mobile client registers itself with the communication server, **block 504**. As described above, wireless mobile clients may each register with the communication server through entry of a client-specific identifier such as a dial number associated with a particular wireless mobile client. Alternatively, the communication server may automatically determine client-specific identifiers.

Once a wireless mobile client has registered with the communication server, the communication server determines a crowd image or animation to be displayed, **block**